

1894 EDITION

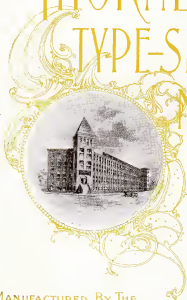


THE THORNE



MANUFACTURED BY THE
THORNE TYPE-SETTING MACHINE CO.
HARTFORD, CONN.

THE THORNE TYPE-SETTING MACHINE



R. W. NELSON PRESY
E. F. LINKE - TREAS
E. J. ANDREWS SECY.

MANUFACTURED BY THE

THORNE TYPE-SETTING MACHINE CO

HARTFORD, CONN





THE THORNE

INTRODUCTION.

IN THIS CIRCULAR the manufacturers of THE THORNE endeavor by brief description and illustration to present the important features of their machine; adding thereto a few of the commendatory letters received both from the publishers who were among the first to adopt THE THORNE as well as from more recent customers.

During the past few months many important improvements have been made, all parts having been reduced to the simplest and strongest forms. The number of parts has been materially decreased, and THE THORNE to-day is the most practical, simple and efficient machine made for setting and distributing type. The parts are made interchangeable and may be fitted to the machine by any intelligent person, so that the constant attendance of skilled machinists, required where other machines are used, is entirely unnecessary in offices equipped with THE THORNE. Each machine is carefully inspected by competent workmen at the factory, and given thorough working tests before being shipped, thus ensuring perfect operation when erected in the office of the customer.

Type ready for use in the machines may now be purchased from nearly all the more prominent type foundries. We carry in stock several standard faces of all sizes for book and newspaper use, and are also prepared to promptly nick any type not so carried which may be sent us by customers whose work necessitates the use of special faces.

Further information will be furnished on application, and special facilities for inspecting machines in operation will be provided visitors to any of the offices of the Company.

THORNE TYPE-SETTING MACHINE COMPANY.






THE THORNE

TYPE-SETTING AND DISTRIBUTING MACHINE.

PRICE, COMPLETE WITH ALL FIXTURES, F. O. B. HARTFORD, \$1,800.

HE THORNE Machine, using type, produces perfect typographical results as well as great economy. It is simple in construction, and does not require the attendance of a machinist. The distribution is automatic; and, while both the distributing and setting mechanisms are contained in one machine, each operation is independent. Complete information as to terms of sale, and facilities for inspecting machines in operation furnished on application to

THORNE TYPE-SETTING MACHINE COMPANY,

GENERAL OFFICE AND FACTORY,

581 CAPITOL AVENUE, HARTFORD, CONN.

NEW YORK OFFICE:

FRED A. SLATE, MANAGER,

WESTERN OFFICE:

C. S. BURCH, F. H. HALL, MANAGERS,

DUANE, COR. ROSE ST., NEW YORK CITY. 139 MONROE ST., CHICAGO, ILL.

C. H. COLLAGAN, 104 Milk St., BOSTON, MASS.
H. L. BULLEN, Duane, cor. Rose St., NEW YORK CITY.
WM. B. SCOTT, 606 Sansom St., PHILADELPHIA, PA.
E. P. SUTER, Water and Frederick Sts., BALTIMORE, MD.
H. L. BAKER, 83-85 Ellicott St., BUFFALO, N. Y.
F. B. BERRY, 280-241 St. Claire St., CLEVELAND, OHIO.
GEO. L. POLLANSBER, 308 Wood St., PITTSBURGH, PA.
WILLIAM BLOEBBAUM, 7-17 Longworth St., CINCINNATI, O.
E. V. WALDO, 89 Huron St., MILWAUKEE, WIS.
W. S. MARDER, 4th and Elm Sts., ST. LOUIS, MO.
WEBSTER & BRANDTJEN, 112 Fifth Ave. South, MINNEAPOLIS, MINN.
I. N. BAKER, 504-508 Delaware St., KANSAS CITY, MO.
H. P. HALLOCK, 1118 Howard St., OMAHA, NEB.
JOHN CRESWELL, 1614 Blake St., DENVER, COLO.
E. H. PALMER, Front and Alder Sts., PORTLAND, ORE.
J. V. A. REY, 403-407 Sansonic St., SAN FRANCISCO, CAL.
DODSON PRINTERS' SUPPLY CO., 23 East Mitchell St., ATLANTA, GA.
TYPE-SETTING SYNDICATE, LTD., 2 Copthall Building, LONDON, E. C., ENGLAND.



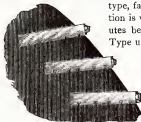
FRONT VIEW OF THE THORNE.

THE THORNE

ITS CONSTRUCTION AND OPERATION.

THE MECHANISM, which is simple, consists primarily of two vertical cylinders sixteen inches in diameter, placed one above the other on the same axis. In the surface of these cylinders are cut ninety vertical channels, extending the entire length of each cylinder, in depth nearly equal to the length of a type, and corresponding in width to the body of the type to be used.

The upper cylinder, which revolves, forms the distributor, and into its channels is loaded galley. This operation is less than five minutes of time, the same as used in the foundry, each quad having a combination peculiar to itself. The lower cylinder, which is stationary, is fitted with a com-



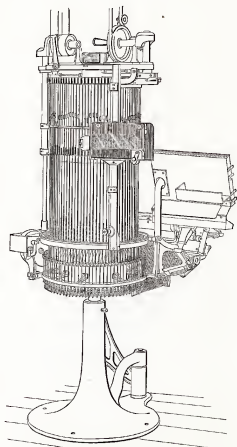
SECTION OF LOWER CYLINDER.

type, face out, from a special station is very simple and rapid, no time being required to load

Type used in the machines is for hand work, but in machines by beside opposite the character, space and combination of nicks. Each channel in the which is stationary, combination of steel

“wards” on one side, and the combination of nicks of one particular type, character or space corresponds with the combination of wards in one channel of the lower cylinder only, as illustrated in the above sketch.

The distributing cylinder, having been loaded with matter for distribution, revolves with a step-by-step movement, each step bringing the different channels of the distributing cylinder into exact coincidence with the channels of the lower cylinder. The lowest types in the channels of the distributor, when brought over channels in the lower cylinder having



BACK VIEW OF THE THORNE.

combinations of wards corresponding with the combinations of nicks in their sides, drop into such channels. They can not go into any channel except that for which they are nicked; and as the channels, by the rotation of the cylinder, are made to coincide, or match, one hundred and twenty times per minute, and as frequently several characters find their respective channels at the same step of the distributor, over 8,000 ems can be automatically distributed in an hour.

Provision is made for taking out surplus type in any channel when an excess of a particular letter has been distributed, and for replenishing when a sort is exhausted before distribution supplies it. These surplus sorts are kept in type-founders' galleys placed in a cabinet convenient to the machine, such galleys and cabinets being furnished with machines.

The key-board resembles that of a type-writer, except that it is larger and has more keys. The keys are connected by levers, etc., to plungers, the ends of which when at rest are immediately behind the bottom letters in the channels of the lower cylinder. Immediately in front of and with its surface level with the bottom of the lines of type in the channels of the lower cylinder is a revolving disc, the axis of which is the same as that of the cylinders. The disc revolves rapidly from left to right, and, when the operator touches a key, the plunger to which it is attached ejects the lowest type of the corresponding channel out upon the disc, by which it is carried to the right hand side of the machine, where it is received on an endless belt, which carries it to a lifting apparatus, called the packer, which raises each successive letter into proper position in a continuous line. The marvelous accuracy and nicety of this operation is one of the phenomenal features of the machine. As one type follows another, the line is pushed along across the front of the machine, between the key-board and the lower cylinder, through a channel called the type-way.

At the left of the key-board is the justifying apparatus, where a second operator, who has before him a case containing spaces, quads, extra sorts, leads, etc., separates with a grab set to the required measure as much from the continuous line of type in the type-way as will form a line of the measure required by the newspaper column or book page in process of composition. As the line seldom fills the justifier head—which corresponds to the printer's stick—the second operator, who is called the justifier, changes such spaces as it may be required to fill the line, and inserts hyphens when a division of the last word of the line makes this necessary. As the justifier reads the line while spacing it out, and corrects any errors he may find therein, the type set by the machines is remarkably free from errors where operators have become expert. By this

process of justifying, the key-board operator is not delayed—as in line-casting machines—by having to read over his line before it is justified, and he can thus proceed with much greater rapidity than is possible on line-casting machines. Any errors which may have escaped the attention of the justifier are as readily corrected on the galleys as is ordinary hand-set matter; thus the accuracy and “style” of the office may be maintained, and the proof-readers are not compelled to pass errors that in line-casting machine matter would cause delay by recasting lines containing such errors.

The arrangement of the keys is such that in playing in the direction as indicated by the figures 1-2-3-4- etc., to 90, the operator may play with the utmost rapidity; thus, the word “and” with the space which would follow it, is located as represented on the diagram by keys numbered 12-14-16-19, and even if these keys should be played simultaneously, the word would come into the line correctly and be followed by its space. A study of the key-board shows a large number of such possible combinations, both of words and syllables, such as and-as-at-any-by-can-con-cone-com-cot-cat-cast-cut-for-far-fast-fat-in-it-ink-is-ion-jet-jot-job-joy-last-let-lit-line-list-lion-lay-my-net-on-one-or-out-past-put-pay-pat-pan-pet-ply-pry-qu-try-th-thy-was-war-wet-etc., etc., and by becoming familiar with these, the operator is enabled to play out type with great speed, with little mental or physical effort. Repeated tests of speed taken while operators were engaged in actual work have demonstrated that the machine will produce type at the rate of over 9,000 ems of solid type per hour; seven or eight lines per minute of Minion, containing twenty-two ems of type each, being frequently produced by rapid operators.

The power required to drive each machine is very light, three to five machines being driven by a one-horse power electric motor. While any steady power is all that machines require, electric power, being most steady, is recommended. Electricity has come into such universal use that it can now be obtained for power at very low rates in almost any of the cities of this country.

The machine is driven by two light belts, one of which transmits power to the revolving disc and the other parts of the setting apparatus, and the other, by means of an eccentric shaft and pawls operating on an index ring attached to the top of the upper cylinder, produces the step-by-step motion of the distributor.



VIEW IN THE THORNE FACTORY—SMALL MACHINERY DEPARTMENT.

FEATURES OF THE THORNE.



AMONG other decided advantages possessed by THE THORNE are that it sets and distributes simultaneously or separately, at will; requires less than five feet square of floor space for the machine; is simple in construction, and made to the highest standard of mechanical excellence.

THE THORNE is thoroughly adapted for all kinds of book and newspaper composition. The shortest "takes" can be handled as expeditiously on the machine as by hand compositors—which feature will be especially appreciated in its use in daily newspaper offices.

The machine is easily kept in working order, is simple and durable in construction, and for running requires but little more power than an ordinary sewing machine.

"Proofs" from matter set on the machine are much "cleaner" than those from matter set in the ordinary way; the "distribution" being automatic and absolutely correct, there can be no typographical errors from that source.

The machine may be used twenty-four hours a day if desired, the distribution being automatic, as above stated, and no time required to "fill the cases" as in hand work.

Wherever used they displace all frames and cases for body letter, except cases for the type used in correcting proofs. One machine occupies about the same floor space as a compositor's frame. In a room filled with machines twice as much type can be set as in the same room filled with frames and cases.

Anybody who has intelligence enough to run an ordinary type-writer can easily learn to operate THE THORNE; yet it is doubtless true that practical compositors, by their familiarity with the use of type, the rules of the craft, and various little dexterities which are well understood among printers, become expert in the use of the machines more quickly than the ordinary mortal.

The shortest takes, two-line letter "ads," market reports, sporting programmes, foot-ball results, and open advertisements not containing many different sizes of type, are set with great celerity and economy by aid of THE THORNE, features specially valuable in newspaper composition. Italics also are readily inserted.

Composition by THE THORNE is very compact, having few, if any, make-evens, and saves both the time and the money (paid for inserting quads) expended in the numerous make-evens resulting from hand composition when copy is cut up into short takes.

The wretched tedium of distribution is avoided, and the physical and mental strain involved in composition is minimized.




VIEW IN THE THORNE FACTORY—LARGE MACHINERY DEPARTMENT.



THE THORNE

LETTERS OF COMMENDATION.

OME of the following commendatory letters from publishers using THE THORNE are from offices which were first to adopt this method of composition, while others show the success attained in offices in which machine composition is being tried for the first time.

These letters from daily and weekly newspaper publishers, as well as from book publishing concerns, show that THE THORNE handles the type on all classes of publications at a very great saving over hand composition; in many instances saving their entire cost each year.

Few newspaper offices in the United States require such a high standard of excellence in their composition as does the American Press Association. Its manager thoroughly investigated all machines for setting type, as well as line-casting machines, and in November last purchased two Thorne machines. These were put to every possible test, and the managers were gratified to learn that the machines not only saved largely on the cost of composition, but turned out uniformly better work than had been done by hand. They now have in successful operation six Thorne machines for English type-setting and one for German work, at their New York office, 45 and 47 Park Place, using some of them for both day and night work. With but two experienced teams, four machines in their office set and distributed in forty-eight hours, for the week ending April 27th, 1894, over nine hundred thousand ems. This work was on minion and brevier type, thirteen ems measure, and with no "heads" or "fat" of any kind.

The following is a statement received from the foreman of the composing room, showing the highest week's record to date:

AMERICAN PRESS ASSOCIATION.

NEW YORK, May 23d, 1894.

Report of type set on a Thorne machine, in the composing room of the American Press Association, during week ending Thursday, May 17th. Operators receive \$24 per week each, and the hand rate of composition in the office is 40 cents per thousand ems, the Union rates in this city.

TIME WORKED.	EMS TYPE SET.	TOTAL COST, INCLUDING CORRECTIONS.	PROFIT BASED ON 40 CENTS PER 1,000 EMS.
1st day, 8 hours.	54,000	\$9.95	\$11.65
2d " 8 "	50,000	9.95	10.05
3d " 8 "	51,000	10.00	10.40
4th " 8 "	57,000	10.30	12.50
5th " 8 "	51,000	9.95	10.45
6th " 8 "	51,000	10.00	10.40
Total, 48 "	314,000	\$60.15	\$65.45

NOTE.—The above included not a single line of heads or signatures—in fact, nothing but from twelve to twenty-five dashes per day. The copy was not specially picked; it was taken in turn from the general hook.

J. M. HAZZARD, *Foreman.*

THE HARTFORD POST.

HARTFORD, CONN., May 25th, 1894.

Thorne Type-Setting Machine Company:

GENTLEMEN:—We have been using the Thorne machine for the past six years, during which time the entire reading matter, as well as a large portion of the advertising, such as reading notices, the reading matter in advertisements, etc., has been set on the machines. Our five minion machines produce over one million one hundred thousand ems per week of forty-eight hours, and reduce the cost of composition fifty per cent.

Yours truly,

E. C. WILLSON, *Treasurer.*

THE HARTFORD POST.

THE BRIDGEPORT POST.

BRIDGEPORT, CONN., May 12th, 1894.

R. W. Nelson, President:

DEAR SIR: We are more than satisfied with the results of the working of the Thorne Type-Setting Machines in our office. One machine has been in operation eighteen months, the other nearly a year, and we are saving forty-five per cent. over the cost of hand composition, after taking out the interest on the investment, cost of power, etc.

Yours respectfully,

GEO. W. HILLS, *General Manager.*

THE NEWS COMPANY.

JOLIET, ILL., May 26th, 1894.

Thorne Type-Setting Machine Company :

GENTLEMEN:—Our machine cut the cost of composition from 27 cts. to 13 cts. per thousand, using Union printers for operators, at their weekly scale of \$12.00. There are many advantages of machine type-setting, but the greatest we find is that it permits us to set up a large amount of type in a short space of time. A second machine has been ordered to be here in about ten days; then THE NEWS will be a minion daily and will be in a position to set up every campaign speech made in Joliet this season.

Yours very truly,

J. H. FERRISS, *President.*

THE NEWS COMPANY.

PORTLAND DAILY PRESS.

PORTLAND, MAINE, May 18th, 1894.

Thorne Type-Setting Machine Company :

GENTLEMEN:—We append the record of our operators on the two machines for the last six days as you request:

WORK PRODUCED BY NIGHT OPERATORS.			WORK PRODUCED BY DAY OPERATORS.		
DATE.	6 Point Type. Operators 10 months' experience	7 Point Type. Operators 4 weeks' experience.	DATE.	7 Point Type, Female Operators.	6 Point Type. Two inexperienced Operators.
May 12	45,660 ems.	27,660 ems.	May 11	29,000 ems.	16,000 ems.
" 14	50,666 "	28,166 "	" 12	21,000* "	15,800 "
" 15	47,666 "	29,166 "	" 14	28,000 "	12,300 "
" 16	52,666 "	28,800 "	" 15	27,000 "	16,800 "
" 17	50,833 "	31,000 "	" 16	27,600 "	12,000 "
" 18	53,166 "	29,833 "	" 17	28,600 "	22,300 "
Total.	300,157 ems.	178,119 ems.	Total.	161,200 ems.	94,200 ems.

REMARKS.—Night operators are Union men, who before machines were introduced into this office had never seen a machine. Day operators on minion machine were compositors before working as operators; but day operators on six point machine are without previous experience either as compositors or operators. *Short day, Saturday.

The day operators on the six point machine, whose record is shown in the last column of the above table, are a distributor boy who fills up the channels and then justifies, and a girl who is learning, who operates and also justifies when boy is distributing. We think they are doing finely for beginners. The day on which only 12,000 ems were produced they set some tables. The copy was book size, so it was not exactly reprint as far as justifying goes. This record may be of interest to show what inexperienced people can do on the machine. The girl has been in the office but three weeks. We got 134,000 out of the two machines yesterday and were able to give over twenty-five columns of machine set reading matter this morning.

Yours truly,

F. S. MORTON, *Manager.*

PORTLAND PUBLISHING CO.

THE EVENING POST.

NEW YORK, May 25th, 1894.

Thorne Type-Setting Machine Company :

GENTLEMEN:—Replying to your request for information as to my experience with the Thorne, I send you herewith a copy of a letter which I recently sent to a publisher in England, in compliance with a similar request. The information contained in this letter is complete, and I trust that you may be able to use the same to advantage.

Yours truly, MORRIS VAN VLIET, *Foreman.*

* * * I began the use of these machines in the composing room of the *New York Evening Post* two years ago last January, after having carefully investigated the claims of the other machines then in the market. First put in one Thorne machine, and, after using it about six months, was so well pleased with it that I recommended the purchase of two more, and a year later added other two to our plant, making five now in use. The output from these machines now averages between six and seven thousand ems per hour each, at a saving of about 45 per cent. One great advantage these machines have over all others is their reliability. I have not had a disabled machine since they were set up. Neither do they require a skilled mechanic to keep them in order. They are the perfection of mechanism.

The proof corrections are more easily and rapidly made than those on the line-casting machines, and without stopping a machine to make them.

The type used on them (estimating on the basis of a new dress every year, which in many offices would not be necessary) costs less than the metal, and gas used to melt it, on the line-casting machines. They are always ready for instant use, without waiting for metal to melt, and occupy very little space.

The typographical appearance of papers printed from *type* is much superior to those printed from the product of the line-casting machines. A good matrix can be made from a type form in less than half the time that it takes to make one from a form made up from the product of the line-casting machines. There is also a great saving of space, which I will illustrate by saying that there are about 300 more words in a column of solid agate, 20 inches long, set on the Thorne machines, than in the agate product of the line-casting machine in the same space.

In conclusion, I would say that I can confidently recommend the Thorne Type-Setting Machine, and what I have learned of the line-casting machines, since I commenced the use of the Thorne, has only strengthened the opinion that I selected wisely.

I send accompanying tabulated statement of output (in ems), time run and average per hour of three minion machines in month of December, '93.

For the week just ended (April 20, 1894) the output was 285,000 ems for each machine in 44 hours, an average of about 6,350 ems per hour, about four-fifths solid matter.

Very truly yours,

MORRIS VAN VLIET, *Foreman.*

FOUR WEEKS' WORK OF THREE THORNE MACHINES, NEW YORK EVENING POST.

FIRST MACHINE.				SECOND MACHINE.				THIRD MACHINE.			
DATE, 1893.	TIME RUN.	EMS TYPE SET.	AVERAGE PER HOUR.	DATE, 1893.	TIME RUN.	EMS TYPE SET.	AVERAGE PER HOUR.	DATE, 1893.	TIME RUN.	EMS TYPE SET.	AVER. PER HR.
	hr. m.				hr. m.				hr. m.		
Dec. 1	8 : 30	37,750	6,794	Dec. 1	8 : 40	58,500	6,750	Dec. 1	8 : 15	51,500	6,242
" 2	6 : 40	46,000	6,900	" 2	6 : 40	44,500	6,675	" 2	6 : 40	40,000	6,000
" 4	7 : 15	53,000	7,172	" 4	7 : 50	50,000	6,382	" 4	7 : 35	46,750	6,153
" 5	5 : 30	40,750	7,640	" 5	5 : 45	38,000	6,008	" 5	5 : 10	34,750	6,725
" 6	6 : 15	48,000	7,680	" 6	6 : 30	46,000	7,076	" 6	6 : 30	45,250	6,061
" 7	6 : 50	52,000	7,600	" 7	6 : 30	45,500	7,000	" 7	6 : 45	42,000	6,222
Total.	40 : 50	296,500	7,301	Total.	41 : 55	292,500	6,739	Total.	40 : 55	360,250	6,390
Dec. 8	7 : 35	55,500	7,318	Dec. 8	8 : 00	32,750	4,093	Dec. 8	7 : 45	49,750	6,419
" 9	5 : 10	38,500	7,451	" 9	5 : 00	32,750	6,530	" 9	5 : 00	33,250	6,050
" 11	7 : 30	53,000	7,066	" 11	7 : 15	48,000	6,820	" 11	7 : 35	46,000	6,065
" 12	7 : 35	55,250	7,449	" 12	7 : 30	51,250	6,832	" 12	7 : 15	47,000	6,482
" 13	7 : 35	55,250	7,285	" 13	7 : 40	52,750	6,880	" 13	7 : 20	46,750	6,075
" 14	7 : 10	52,750	7,360	" 14	7 : 00	48,500	6,928	" 14	7 : 05	43,500	6,141
Total.	42 : 35	310,250	7,314	Total.	42 : 35	290,000	6,971	Total.	42 : 00	356,250	6,339
Dec. 15	7 : 30	53,500	7,133	Dec. 15	7 : 15	48,500	6,089	Dec. 15	7 : 00	43,750	6,350
" 16	5 : 30	37,250	6,772	" 16	5 : 45	37,500	6,716	" 16	5 : 20	34,500	6,408
" 18	7 : 20	52,750	7,193	" 18	7 : 30	47,750	6,511	" 18	7 : 45	46,000	5,895
" 19	6 : 30	48,250	7,423	" 19	6 : 50	45,500	6,058	" 19	6 : 45	44,750	6,029
" 20	7 : 10	50,500	7,446	" 20	7 : 10	45,250	6,814	" 20	6 : 50	44,000	6,439
" 21	7 : 10	52,000	7,255	" 21	7 : 10	49,000	6,887	" 21	7 : 20	45,750	6,239
Total.	41 : 10	294,250	7,147	Total.	41 : 20	273,500	6,616	Total.	41 : 00	288,750	6,310
Dec. 22	7 : 10	53,500	7,465	Dec. 22	7 : 30	52,750	7,033	Dec. 22	7 : 30	49,500	6,000
" 23	4 : 20	32,000	7,384	" 23	4 : 25	28,250	6,396	" 23	4 : 30	28,750	5,722
" 25	.....	.....	.....	" 25	.....	.....	.....	" 25	.....	.....	.....
" 26	6 : 10	41,250	7,175	" 26	6 : 25	41,250	6,428	" 26	6 : 30	39,750	6,115
" 27	6 : 00	46,000	7,750	" 27	6 : 10	44,750	7,236	" 27	6 : 05	39,750	6,364
" 28	6 : 10	40,500	7,340	" 28	6 : 30	43,500	6,092	" 28	6 : 15	40,750	6,220
Total.	29 : 50	222,750	7,406	Total.	31 : 00	310,500	6,790	Total.	30 : 50	195,500	6,340

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ters of the third congressional
[Ohio were given an opportu-
nity between the McKinley bid
and Fall. They indicated their
willingness to support the
National Reform, the tar-

There is a constant effort on the
part of those who would advance the
cause of segregation to create the largest
Colonial Office in the United States
and to make those who have differed
in recent years, partners. This is
the kind of a "policy" that is
a public man in the
a leader and one
of the real star
and through
these days

(203)

THE NEW YORK EVANGELIST.

NEW YORK, May 28th, 1894.

Thorne Type-Setting Machine Company :

GENTLEMEN:—We have been using the Thorne Type-Setting Machine for the past three years with the most gratifying results.

It is an economy in expense, in room and in cleanliness, while the character of the work done is equal to the best of hand composition, and the speed many times greater.

I would suggest the typographical appearance of *The Evangelist* as the best evidence of the high grade of work done by the machine.

Very truly yours,

J. W. NEWELL, *Foreman.*

THE INTERIOR.

CHICAGO, May 24th, 1894.

Mr. C. S. Burch, Western Manager Thorne Type-Setting Machine Co.:

MY DEAR SIR:—We have used the Thorne Type-Setting Machine for the past four years. Our machines are now running quite satisfactorily, but as we believe that we can not afford to do without the best improvements to date, and as our present machines were of the first lot put upon the market, we have asked you to replace them with your latest and best. They run, as the boys used to say, "Sleek as a whistle," and as Long-fellow said about the potter's wheel, "without a jar, without a sound." They have more refinement of manner, culture and brains than a Vassar graduate—and, unlike her, never get the sulks. They are semper paratus, and they always "get there."

Respectfully,

WM. C. GRAY, *Editor.*

THE RAM'S HORN.

CHICAGO, May 24th, 1894.

Thorne Type-Setting Machine Company :

GENTLEMEN:—After three years' actual experience with your machines, I am ready and glad to express my high appreciation of their practical worth. Since the last outfit was installed, one year ago, I have not lost an hour in operating, and I think \$10 or less have paid for all repairs. We have averaged forty-two thousand brevier ems per day of nine hours, and have often crowded to fifty thousand or more when occasion required.

I think the frequent praise of *The Ram's Horn's* typographical appearance is greatly due to you, inasmuch as the spacing of our lines is perfectly regular, and our type is kept clean and smooth. I have no doubt that our rapidly growing business will require an increasing number of your machines, and I hope and believe that our future experience will be as gratifying as that hitherto.

Very truly yours,

FRED'K L. CHAPMAN & CO.

FRED'K L. CHAPMAN, *President.*

THE CHRISTIAN REGISTER.

MY DEAR MR. NELSON:—In answer to your request for a statement of what we *are* doing (not what we *can* do), I would say that, taking our copy as it ran, without special effort, but simply footing the week's work at the end of the week, we finished over 200,000 ems of brevier, narrow measure, part leaded and part solid, within a week of less than fifty hours. In one hour, on copy which happened to be on hand (not selected), we set a little over 5,900 ems, making one change of galley.

Boston, Mass.

Yours cordially,

GEO. H. ELLIS.

THE SUNDAY MORNING CALL.

PITTSFIELD, MASS., May 22d, 1894.

Thorne Type-Setting Machine Company:

GENTLEMEN:—Since August, 1893, one of your ninety-channel, eight-point machines has been in use in our office. The Thorne was purchased, after a personal examination of all the other type-setting machines, as being in our opinion the best in every respect. The machine requires no expert overseer or machinist, it being run since it was installed in our office by one young lady and two young men, each less than twenty years of age. It has never missed for a day doing its full work on account of accident or breakage of parts. Neither of our "team" had even seen a machine for type-setting until ours was introduced in this office. With this "team," as we call them, we are able to average about 40,000 ems of solid brevier each day of 8½ hours. The scale of composition in this city is 25 cents per 1,000 ems; and allowing the machine the same that we would pay for hand composition, charging back to the machine the labor, expense of small motor, interest on investment, etc., we find that the Thorne saves us nearly \$100 per month. Besides, we have been able to practically discard the use of syndicate or "plate" matter. We find that the machine is practical, economical and has cost us very little in repairs or new parts. If we couldn't get another, we wouldn't take \$10,000 for the Thorne machine we own, and prefer it to hand composition, if we could get the latter at the same price.

Very truly yours,

W. J. OATMAN, *Business Manager.*

OFFICE OF CHAS. D. SIBLEY.

NEW YORK, June 25th, 1894.

Thorne Type-Setting Machine Company:

DEAR SIR:—I take great pleasure in recommending the Thorne Type-Setting Machine, and its work proves it to be the best and most economical machine in the market. I have used a Long Primer machine steadily for the past two years, and am perfectly satisfied with the results it has attained for me. Evidence of the success attained by THE THORNE in my office is the order recently given you for an Eight Point machine.

Yours truly,

CHAS. D. SIBLEY.

THE PUBLISHERS' PRINTING COMPANY,

132-136 WEST FOURTEENTH ST.

NEW YORK, May 25th, 1894.

Thorne Type-Setting Machine Company :

GENTLEMEN:—I append the following partial list of books and periodicals set on the twelve Thorne machines in our establishment. This list, including as it does books of the highest grade of typographical excellence, as well as weekly and monthly periodicals, shows the wide range of work which the Thorne is capable of producing:

"The Voice," published weekly.

"The Forum," "Literary Digest," and "Romance."

Wood's Medical and Surgical Monographs. Thirty-six vols.

Diseases of the Eye. By Dr. Henry D. Noyes.

Ophthalmology and Ophthalmoscopy. By Dr. D. B. St. John Roosa.

Orthopedic Surgery. By Drs. Bradford and Lovett.

Diseases of the Nose and Throat. By Dr. Francke H. Bosworth.

Medical and Surgical Gynecology (Pozzi.) By Dr. Brooks H. Wells.

Diseases of the Throat, Nose and Chest. By Dr. E. Fletcher Ingals.

The Healing of Arteries. By Dr. J. Collins Warren.

Familiar Forms of Nervous Diseases. By Dr. M. Allen Starr.

Practical Chemistry. By Dr. R. A. Witthaus.

Diseases of the Ear. By Dr. Albert H. Buck.

The Practice of Medicine. By Dr. R. C. M. Page.

Biography of William Lloyd Garrison. By Goldwin Smith.

Nicene and Post-Nicene Fathers of the Christian Church. By Philip Schaff, D.D., LL.D.

President Harrison's Speeches; Redemption of Edward Strahan; Alone on a Wide, Wide Sea; The Catherwood Mystery; Sir Anthony's Secret; Nada, the Lily; A Window in Thrums; The White Company; Speech of Monkeys; Primrose Path; The Other Bond; Marjorie Randolph; Ruskin's Poems; Christianity and Infallibility; Electricity Simplified; Christian Anthropology.

Yours very truly,

JOSEPH GANTZ, *President.*

THE FORUM.

GENTLEMEN:—We take pleasure in saying that we regard the work done on *The Forum* by the Thorne Type-Setting Machine as satisfactory in every way. *The Forum*, as you know, was formerly set by one of the most accurate printing firms in the United States, but the work that you have done for us on the Thorne Machine is in every respect as good as theirs was done by hand.

Very truly yours,

THE FORUM PUBLISHING CO.

To The Publishers' Printing Co.

OFFICE UNIVERSITY PRESS.

(Established 1639.)

CAMBRIDGE, MASS., October 14th, 1891.

GENTLEMEN:—It is upward of a year since we commenced to use the Thorne Type-Setting Machine, of which we now have four.

The average daily production is from 30,000 to 35,000 ems; but much more, doubtless, could be done than our statement shows.

We have found them of inestimable value; and we rejoice with exceeding great joy that the drudgery of type-setting has been so greatly ameliorated.

Very truly yours,

JOHN WILSON & SON.

Since the above was written two more machines have been added to the equipment of the composing room of the University Press.

THE RIVERSIDE PRESS.

CAMBRIDGE, MASS., March 28th, 1893.

Thorne Type-Setting Machine Company:

DEAR SIR: We have used one of your Type-Setting Machines for over a year, and are very glad to testify to the quality of the work which it does and to its great convenience when we are pressed for the rapid completion of a volume.

Very truly yours,

H. O. HOUGHTON & Co.

THE ADVANTAGES OF THE THORNE.

[From *Daily Times*, Oxford, England.]

Unlike other type-setting machines recently introduced, it fully meets all the stern demands of a newspaper and supersedes other systems employed in setting type by machinery. This advantage of machine over hand labor is not, however, all on the side of the employer, albeit the saving, as we shall show, has been most satisfactory. The compositors who work these machines affirm that the physical and mental strain is incalculably minimized, and that the compositor of the future will have an easy life in contrast with that of the past—a boon which can not be over-estimated. To sum up the advantages of the "Thorne" system as demonstrated in the Oxford *Times* office—(1) the saving in cost exceeds that of any other apparatus; (2) it composes and distributes either simultaneously or independently; (3) justification is secured before matter is removed from the machine; (4) its construction is extremely simple and very substantial; (5) any intelligent operative can keep it in order; (6) its *modus operandi* is easily acquired; (7) the small loss by breakage of type is immaterial in view of the advantages obtained; lastly, the "Thorne" machine is beautifully made and compact, needing only seven clear square feet of working space. Every part of the mechanism is interchangeable, and can readily be reached. It is not burdened with complicated details, and repairs cost little.

TYPE-COMPOSING MACHINES.

[Extract from paper read at St. James's Hall, London.]

By JOHN SOUTHWARD,

Author of "The Dictionary of Typography," "Practical Printing," "The Principles and Progress of Printing Machinery"; Articles "Typography" in "Encyclopædia Britannica" and "Printing" in "Chambers' Encyclopædia."

* * * In short, a single Thorne machine is the concentration of from six to twelve hand cases, differing, however, in this, that to start composition it contains only about 30 lbs. of type in compact order, instead of some 300 lbs. to 500 lbs. heaped up in the small divisions of the six or more ordinary hand cases. It has conclusively proved its capability to meet all the stern requirements of both morning and evening newspapers, doing short "takes" as well as long "takes" with celerity and profit.

The invention of the rotary press was the greatest event in the typographical annals of the first quarter of the nineteenth century. The invention and introduction of the rotary type-composing machine is the great event of the last quarter of the century. It triumphantly crowns an edifice of progress in the graphic arts unexcelled in interest, in brilliancy, in importance, in usefulness, by the progress accomplished in any other sphere of industry, or in any department of human ingenuity.






VIEW IN THE THORNE FACTORY-MILLING DEPARTMENT.



DIE THORNE

SETZT DEUTSCHE SCHRIFT.

IE THORNE ist ebenso anwendbar für Deutsche Zeitungs- und Werkdruckereien als für das Englische. Das Tastenbrett ist mit deutscher Schrift eingerichtet, und die Maschine setzt und legt ab mit grosser Schnelligkeit. Eine Zahl dieser Maschinen werden in Deutschland gebraucht, und mehrere sind für dieses Land bestellt.

Die "American Press Association" hat eine im Gebrauch in ihrer New York Office und nach der ersten Woche schon an Zeit und Geld eine Ersparniss gemacht. Mit unerfahrenen Setzern wurden in acht und vierzig Stunden 330,000 Buchstaben gesetzt und abgelegt an dieser Maschine nachdem sie nur fünf Wochen im Gebrauch war. Folgende sind Zeugnisse deutscher Verleger, und wir bedauern dass, weil der Setzer dieses Circulars keine deutschen Typen hat, es nothwendig ist englische Schrift zu brauchen.

AMERICAN PRESS ASSOCIATION.

NEW YORK, 23. Mai 1894.

Thorne Type-Setting Machine Company:

GEHRTE HERREN:—Nachdem unsere THORNE Maschine (die deutsche Schrift setzt), zwei Wochen im-Betriebe war, wurde an Zeit und Geld schon eine Ersparniss gemacht, obgleich die Setzer mit ihrer Arbeit ganz unerfahren waren. Sie machen schnelle Fortschritte und werden bald mit ebenso grosser Schnelligkeit arbeiten als die Setzer unserer englischen Schrift.

J. M. HAZZARD, *Foreman*.

DR. PAUL JANCKE,

KOLBERG, 27. August 1893

GEEHRTE HERREN:—Ich bezog zu Anfang dieses Jahres zwei THORNE Setz- und Ablege-Maschinen, welche seit Mitte April cr. in meiner Buchdruckerei in Thätigkeit sind. Ich muss sagen, dass meine Erwartungen in Betreff dieser Maschinen nicht nur erfüllt, sondern übertroffen worden sind. Die Einführung vollzog sich leichter, als ich gedacht hatte. An der Maschine kann jeder arbeiten, der eine Schreibmaschine zu behandeln versteht. Die Konstruktion ist einfach und die Ausführung solide; wesentliche Störungen, welche ohne Hilfe eines Mechanikers durch das Personal nicht augenblicklich beseitigt werden konnten, sind nicht eingetreten und auch nicht zu befürchten. Was die Leistung der Maschine anbetrifft, so wurden auf einer Maschine, welche von zwei Erwachsenen und einem Knaben bedient wurde, nach kaum dreimonatlichem Betriebe bei $9\frac{1}{2}$ stündiger Arbeitszeit in einer Woche regelmässig 300,000 Buchstaben gesetzt. Doch hält die Steigerung der Leistung noch fortdauernd an; die letzte Woche ergab 350,000, so dass ich nicht zweifle, dass 400,000 Buchstaben als regelmässige Wochenleistung in nicht zu ferner Zeit erreicht werden. Nimmt man an, dass ein geschickter Setzer einschliesslich des Ablegens den Tag über 10,000 Buchstaben setzt, was sicher nicht zu niedrig gegriffen ist, so kommt die Leistung einer THORNE Maschine derjenigen von 6 bis 7 Setzern gleich.

Der besondere Vorteil der THORNE Maschine, der sie vor anderen Setz-Maschinen auszeichnet, ist, dass sie selbstständig ablegt, was gleichzeitig mit dem Setzen geschieht. Da die Maschine tadellos druckfähigen Satz liefert, so ist sie nicht nur für Zeitungs-, sondern auch für Werksatz zu verwenden.

Dr. PAUL JANCKE.

WOLFENBÜTTELER ZEITUNG.

WOLFENBÜTTEL, 1. Dezember 1893.

GEEHRTE HERREN:—Unsere THORNE Maschine hat sich, nachdem sie nunmehr 9 Monate in Thätigkeit ist, als unter allen Umständen zuverlässig bewiesen. Dazu ist das Personal jetzt so vertraut mit derselben, dass Störungen so gut wie gar nicht mehr vorkommen. Während die stündliche Leistung 7,000 Buchstaben oft überschreitet, ist der Anfangs beobachtete Bruch der Lettern auf wenige Gramm täglich herabgegangen.

OTTO WOLLERMANN.

JENT & CO.,

BERN, SCHWEIZ, 1. Dezember 1893.

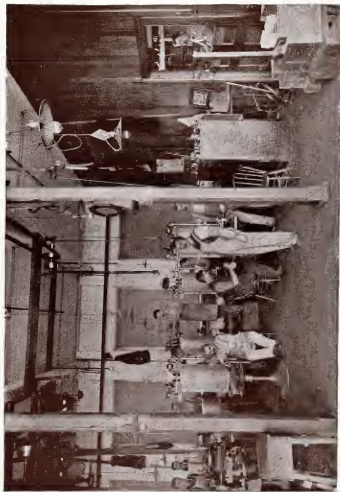
GEEHRTE HERREN:—Wir haben seit, 1 September 1893 zwei THORNE Maschinen im Betriebe und sind von den Leistungen derselben in jeder Beziehung vollständig befriedigt. Die einfache und solide Konstruktion der Maschine schliesst Störungen von einiger Bedeutung gänzlich aus. Stockungen, die etwa einmal vorkommen können, erfordern zu ihrer Beseitigung 1—3 Minuten und haben ihren Grund nicht etwa in der Konstruktion der Maschine, sondern in dem Mangel an Uebung der sie bedienenden Personen. Die Arbeit am Tastbrett erfordert, wie jede andere Arbeit, die korrekt ausgeführt werden soll, Aufmerksamkeit, ist aber durchaus nicht anstrengend.

Die Handhabung der Tasten geschieht, wie an der Schreibmaschine, sitzend, und erfordert keine Kraftanstrengung; ebenso sitzt der Ausschlusser bei seiner Arbeit. Wir erreichten schon acht Wochen nach Inbetriebsetzung der Maschine 6,000 Buchstaben per Stunde und gegenwärtig bewegt sich die Zahl der gesetzten Buchstaben zwischen 6—7000 per Stunde, je nach dem Manuskript.


Die geringen Auslagen für das Signieren der Schrift fallen kaum in Betracht.

JENT & Co.






VIEW IN THE THORNE FACTORY—ASSEMBLING THE MACHINES.



THE THORNE

STANDARD FACES OF TYPE.

TANDARD FACES of type of the various sizes, as shown in the following pages, are kept constantly on hand, nicked and ready for use in the machines, and may be obtained on short notice from any of the offices of the Thorne Type-Setting Machine Company at the same rates per pound as ordinary type.

These faces were selected as being specially adapted to newspaper and periodical work; the faces are clear, readable and strong, and the type being cast of superior metal may be used for either stereotype or letter-press work.

The Thorne Six, Seven and Eight Point No. 1, and the Seven Point No. 7, Eight Point No. 8, and Nine Point No. 9 faces shown match the type used by the American Press Association, so that the publisher using plates from that establishment can, by selecting one of these faces, preserve the uniformity of appearance in his paper. Faces to match the type used by the other leading plate houses will soon be added to the stock kept on hand.

TYPE OF ANY SIZE OR FACE MAY BE USED.

Type of any size or face may be obtained for use with THE THORNE and sent to Hartford or to other cities where nicking machines are located, to have the necessary nicking done. The expense of this is small, being four cents per pound in addition to the freight charges. Thus the publisher whose work requires the use of any special size or face of type may purchase his type from the foundry with which he regularly deals and send it to be nicked to the nearest point where this is done.

Thorne 6 Point (Nonpareil) No. 1.

REPORT OF THE FRANKLIN INSTITUTE.

From a most thorough and exhaustive report on the Thorne Type-Setting and Distributing Machine, by a sub-committee appointed by the Franklin Institute, who visited the factory at Hartford, to investigate the methods practised for securing accuracy and perfection in workmanship, the following extracts are taken:

"This machine, it will be seen, requires accuracy in construction, as do also the types that are used with it, and your committee find, upon personal inspection, that this has been reduced to an exact system.

"By the use of this machine, types made in the highest perfection of type-founding are used, which is not the case in the type of stereotyping or line-casting, because the differences in the form or character of different parts of the same font of letters demand for the best perfection differences of temperature and of metal, which are regulated by the skill and care of the workman in making the type. The only apparatus or adjunct requisite for this machine is steam-power or other propelling power. As compared with other machines requiring the melting and cooling of metals, and electric batteries for checking errors arising from the derangement of the machine, and air-currents for imparting motion to matrices or other equivalent parts, it is far simpler and superior.

"As involving fewer adjuncts, and being, therefore, simpler, securing the best result of typography most expeditiously, and at the least cost, this machine appears to your committee to have surpassed all others in celerity and quality of work. The specimens submitted to your committee are equal to anything procurable by printing, and, in the judgment of your committee, the invention deserves the highest commendation and award in the gift of the Institute."

The argument has been urged that inferior typography is good enough, or at least will do for such ephemeral things as newspapers; but as they are, so to speak, "read as we run," clear, distinct printing is all the more essential, and the character of its typography must exercise an important influence on the circulation of any newspaper, and the advertiser is influenced by both circulation and typographical appearance.

A live, progressive printer doesn't hesitate to purchase a new press, folder or similar piece of machinery, from which immediate or direct results are seldom obtained. But it's different when you put in a Thorne Type-Setter. The use of this machine at once improves your paper (sets up more local news), and you begin to save money on the cost of type-setting after

abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 18½ ems.

(Regular 6 Point.)

Thorne 7 Point (Minion) No. 7.

REPORT OF THE FRANKLIN INSTITUTE.

From a most thorough and exhaustive report on the Thorne Type-Setting and Distributing Machine, by a sub-committee appointed by the Franklin Institute, who visited the factory at Hartford, to investigate the methods practised for securing accuracy and perfection in workmanship, the following extracts are taken:

"This machine, it will be seen, requires accuracy in construction, as do also the types that are used with it, and your committee find, upon personal inspection, that this has been reduced to an exact system.

"By the use of this machine, types made in the highest perfection of type-founding are used, which is not the case in the type of stereotyping or line-casting, because the differences in the form or character of different parts of the same font of letters demand for the best perfection differences of temperature and of metal, which are regulated by the skill and care of the workman in making the type. The only apparatus or adjunct requisite for this machine is steam-power or other propelling power. As compared with other machines requiring the melting and cooling of metals, and electric batteries for checking errors arising from the derangement of the machine, and air-currents for imparting motion to matrices or other equivalent parts, it is far simpler and superior.

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abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 14½ ems.

(5 Point on 7 Point Body.)

Thorne 7 Point (Minion) No. 1.

REPORT OF THE FRANKLIN INSTITUTE.

From a most thorough and exhaustive report on the Thorne Type-Setting and Distributing Machine, by a sub-committee appointed by the Franklin Institute, who visited the factory at Hartford, to investigate the methods practised for securing accuracy and perfection in workmanship, the following extracts are taken:

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abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 15½ ems.

(Regular 7 Point.)

Thorne 8 Point (Brevier) No. 8.

REPORT OF THE FRANKLIN INSTITUTE.

From a most thorough and exhaustive report on the Thorne Type-Setting and Distributing Machine, by a sub-committee appointed by the Franklin Institute, who visited the factory at Hartford, to investigate the methods practised for securing accuracy and perfection in workmanship, the following extracts are taken:

"This machine, it will be seen, requires accuracy in construction, as do also the types that are used with it, and your committee find, upon personal inspection, that this has been reduced to an exact system.

"By the use of this machine, types made in the highest perfection of type-founding are used, which is not the case in the type of stereotyping or line-casting, because the differences in the form or character of different parts of the same font of letters demand for the best perfection differences of temperature and of metal, which are regulated by the skill and care of the workman in making the type. The only apparatus or adjunct requisite for this machine is steam power or other propelling power. As compared with other machines requiring the melting and cooling of metals, and electric batteries for checking errors arising from the derangement of the machine, and air-currents for imparting motion to matrices or other equivalent parts, it is far simpler and superior.

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abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 13½ ems.

(7 Point on 8 Point Body.)

REPORT OF THE FRANKLIN
INSTITUTE.

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abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 14½ ems.

(Regular 8 Point.)

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abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 18 ems.

(8 Point on 9 Point Body.)

REPORT OF THE FRANKLIN INSTITUTE.

From a most thorough and exhaustive report on the TREASON Type-Setting and Distributing Machine by a sub-committee appointed by the Franklin Institute, who visited the factory at Hartford, to investigate the methods practised for securing accuracy and perfection in workmanship the following extracts are taken:

"This machine, it will be seen, requires accuracy in construction, as do also the types that are used with it, and your committee find, upon personal inspection, that this has been reduced to an exact system.

"By the use of this machine, types made in the highest perfection of type-founding are used, which is not the case in the type of stereotyping or line-casting, because the differences in the form or character of different parts of the same fount of letters demand for the best perfection differences of temperature and of metal, which are regulated by the skill and care of the workman in making the type. The only apparatus or adjunct requisite for this machine is steam-power or other propelling power. As compared with other machines requiring the melting and cooling of metals, and electric batteries for checking errors arising from the derangement of the machine, and air-currents for imparting motion to matrices or other equivalent parts, it is far simpler and superior.

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There are some persons who view the type-setting machine as an instrument of cruelty. Perhaps it is; but not more so than was the steam engine, the cotton gin, the electric telegraph and the sewing machine. A society which accepts machine-made clothing, machine-made transportation, machine-made light and heat and food, without question as to the consequences of the labor economy thus involved is not morally prepared to draw a line at machine printed newspapers or machine composed books. We are in the current of great inventions; and the automatic type-caster is one of the inevitable postulates of our ingenious civilization.—Scranton (Penn.) Tribune.

The argument has been urged that inferior typography is good enough, or at least will do for such ephemeral things as newspapers; but as they are, so to speak, "read as we run," clear, distinct printing is all the more essential, and the character of its typography must exercise an importance on the circulation of any newspaper,

abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 15 ems.

(Regular 6 Point.)

REPORT OF THE FRANKLIN INSTITUTE.

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"As involving fewer adjuncts, and being, therefore, simpler, securing the best result of typography most expeditiously, and at the least cost, this machine appears to your committee to have surpassed all others in celerity and quality of work. The specimens submitted to your committee are equal to anything procurable by printing, and in the judgment of your committee, the invention deserves the highest commendation and award in the gift of the Institute."

There are some persons who view the type-setting machine as an instrument of cruelty. Perhaps it is; but not more so than the steam engine, the cotton gin, the electric telegraph and the sewing machine. A society which accepts machine-made clothing, machine made transportation, machine made light and heat and food, without question as to the consequences of the labor economy thus involved is not morally prepared to draw a line

abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 14½ ems.

(Regular 7 Point.)

REPORT OF THE FRANKLIN
INSTITUTE.

From a most thorough and exhaustive report on the THORNE Type-Setting and Distributing Machine, by a sub-committee appointed by the Franklin Institute, who visited the factory at Hartford, to investigate the methods practised for securing accuracy and perfection in workmanship, the following extracts are taken:

"This machine, it will be seen, requires accuracy in construction, as do also the types that are used with it, and your committee find, upon personal inspection, that this has been reduced to an exact system.

"By the use of this machine, types made in the highest perfection of type-founding are used, which is not the case in the type of stereotyping or line-casting, because the differences in the form or character of different parts of the same fount of letters demand for the best perfection differences of temperature and of metal, which are regulated by the skill and care of the workman in making the type. The only apparatus or adjunct requisite for this machine is steam-power or other propelling power. As compared with other machines requiring the melting and cooling of metals, and electric batteries for checking errors arising from the derangement of the machine, and air-currents for imparting motion to matrices or other equivalent parts, it is far simpler and superior.

"As involving fewer adjuncts, and being, therefore, simpler, securing the best result of typography most expeditiously, and at the least cost, this machine appears to your committee to have surpassed all others in celerity and quality of work. The specimens submitted to your committee are equal to anything procurable by printing, and, in the judgment of your committee, the invention deserves the highest commendation and award in the gift of the Institute."

abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 14 ems.

(Regular 8 Point.)

REPORT OF THE FRANKLIN
INSTITUTE.

From a most thorough and exhaustive report on the THORNE Type-Setting and Distributing Machine, by a sub-committee appointed by the Franklin Institute, who visited the factory at Hartford, to investigate the methods practised for securing accuracy and perfection in workmanship, the following extracts are taken:

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"As involving fewer adjuncts, and being, therefore, simpler, securing the best result of typography most expeditiously, and at the least cost, this

abcdefghijklmnopqrstuvwxyz

Alphabet, a to z, 13½ ems.

(Regular 9 Point.)

